

IN THE CLAIMS

1. (Currently Amended) A recording medium in which a plurality of management information are embedded and recorded into content data in a plurality of forms of different remaining intensities, the plurality of forms of different remaining intensity comprising a watermark of strong remaining intensity and a watermark of weak remaining intensity,

wherein management information written into the watermark of the strong remaining intensity is more severe than the management information written into the watermark of the weaker remaining intensity, and

wherein said management information in the watermark of the strong remaining intensity remains even if a signal process is executed to the content data and said management information in the watermark of the weak remaining intensity is erased by executing a signal process to the content data;

the watermark of strong remaining intensity being less likely than the watermark of weak remaining intensity to be altered by processing of the content data~~each watermark is operable to be selectively indicative of one of three or more states of usage rights.~~

2. (Previously Presented) The recording medium according to claim 1, wherein said management information includes at least one of copy management information for managing a copying operation of the content data and reproduction management information for managing a reproducing operation of the content data.

3. (Canceled)

4. (Previously Presented) The recording medium according to claim 1, wherein said form of a strong remaining intensity by which said management information is embedded in the content

data is a form such that said management information spread-spectrum diffused and multiplexed into the content data.

5. (Previous Present) The recording medium according to claim 1, wherein said form of the strong remaining intensity by which said management information is embedded in the data of said contents is a form such that said management information is inserted either at one of a first peak and a second peak in a predetermined range of the content data or at a position near one of said first peak and said second peak.

6. (Previously Presented) The recording medium according to claim 1, wherein said form of the weak remaining intensity by which said management information is embedded in the content data is a form such that said management information is inserted into lower bits of the content data.

7. (Previously Presented) The recording medium according to claim 1, wherein said form of the weak remaining intensity by which said management information is embedded in the content data is a form such that said management information is inserted into a high-order coefficient at the time when the content data have been compressed.

8. (Previously Presented) The recording medium according to claim 1, wherein among said plurality of management information, a managing condition of the management information embedded in the form of the strong remaining intensity by which said management information is embedded in the content data is more severe than that of the management information embedded in the form of the weak remaining intensity by which said management information is embedded in the content data.

9. (Previously Presented) The recording medium according to claim 8 wherein when said management information is copy management information, the management information embedded in

the form of the strong remaining intensity by which said management information is embedded in the content data is a managing condition showing that copying is impossible.

10. (Previously Presented) The recording medium according to claim 8, wherein when said management information is reproduction management information, the management information embedded in the form of the strong remaining intensity by which said management information is embedded in the content data is a managing condition showing that reproduction is impossible.

11. (Currently Amended) A recording method for a recording medium in which, when content data is recorded into the recording medium, management information are embedded and recorded into the content data in a plurality of forms of different remaining intensities, the plurality of forms of different remaining intensities comprising a watermark of strong remaining intensity and a watermark of weak remaining intensity,

wherein management information written into the watermark of the strong remaining intensity is more severe than the management information written into the watermark of the weaker remaining intensity, and

wherein said management information in the watermark of the strong remaining intensity remains even if a signal process is executed to the content data and said management information in the watermark of the weak remaining intensity is erased by executing a signal process to the content data;

the watermark of strong remaining intensity being less likely than the watermark of weak remaining intensity to be altered by processing of the content data~~each watermark is operable to be selectively indicative of one of three or more states of usage rights.~~

12. (Previously Presented) The recording method for a recording medium according to claim 11, wherein said management information includes at least one of copy management information for managing a copying operation of one of the data of said contents and reproduction management information for managing a reproducing operation of one if the data of said contents and said recording medium.

13. (Canceled).

14. (Previously Presented) The recording method for a recording medium according to claim 12, wherein by performing a spread-spectrum process to said management information and multiplexing and recording the resultant management information into the content data, said form of the strong remaining intensity is realized.

15. (Previously Presented) The recording method for a recording medium according to claim 12, wherein said management information inserted at one of a first peak and a second peak in a predetermined range of the data of said contents or at a position near one of said first and second peak, thereby realizing said form of the strong remaining intensity.

16. (Previously Presented) The recording method for a recording medium according to claim 12, wherein said management information is inserted into lower bits of the content data, thereby realizing said form of the weak remaining intensity.

17. (Previously Presented) The recording method for a recording medium according to claim 12, wherein said management information is inserted into a high-order coefficient at a time when the content data has been compressed, thereby realizing said form of the weak remaining intensity.

18. (Previously Presented) The recording method for a recording medium according to claim 12, wherein among said

plurality of management information, a managing condition of the management information embedded in the form of the strong remaining intensity by which said management information is embedded in the content data is more severe than a managing condition of the management information embedded in the form of the weak remaining intensity by which said management information is embedded in the content data.

19. (Currently Amended) A recording method for a recording medium, comprising the steps of:

adding first management information to input content data;

adding second management information whose remaining intensity is weaker than a remaining intensity of said first management information to the content data to which said first management information has been added;

performing a recording signal process on the content data to which said first and second management information have been added; and

recording resultant data into the recording medium,

wherein said first management information remains even if a signal process is executed to the content data recorded on the recording medium and said second management information is erased by executing a signal process to the content data recorded on the recording medium;

the first management information being less likely than the second management information to be altered by processing of the content data~~each of the first management information and the second management information is operable to be selectively indicative of one of three or more states of usage rights.~~

20. (Previously Presented) The recording method for a recording medium according to claim 19, wherein a managing

condition by said first management information is more severe than a managing condition by said second management information.

21. (Previously Presented) The recording method for a recording medium according to claim 20, wherein when each of said first and second management information is copy management information, the managing condition by said first management information is a managing condition showing that copying is impossible.

22. (Currently Amended) A recording and/or reproducing method for a recording medium, comprising the steps of:

reading out content data from the recording medium in which at least first management information and second management information whose remaining intensity is weaker than a remaining intensity of said first management information have been embedded and recorded in the data of said contents, and discriminating whether said second management information has been detected; wherein

when it is determined that said second management information has been detected, a recording and reproducing operation are controlled based on managing condition shown by said second management information,

wherein said first management information remains during the recording and reproducing operation and said second management information is erased during the recording and reproducing operation;

the first management information being less likely than the second management information to be altered by processing of the content data~~each of the first management information and the second management information is operable to be selectively indicative of one of three or more states of usage rights.~~

23. (Previously Presented) The recording and/or reproducing method for a recording medium according to claim 22, wherein when it is determined that said second management information is not detected, the recording and/or reproducing operation are controlled based on said first management information.

24. (Previously Presented) The recording and/or reproducing method for a recording medium according to claim 22, wherein the managing condition by said first management information is more severe than a managing condition by said second management information.

25. (Previously Presented) The recording and/or reproducing method for a recording medium according to claim 24, wherein

when each of said first and second management information is copy management information, the managing condition by said first management information is a managing condition showing that copying is impossible, and

when it is determined that said second management information has been detected, the recording operation is controlled based on said second management information, and when it is determined that said second management information is not detected, the recording operation is inhibited based on said first management information.

26. (Previously Presented) The recording and/or reproducing method for a recording medium according to claim 24, wherein

when each of said first and second management information is reproduction management information, the managing condition by said first management information is a managing condition showing that reproduction is impossible, and

when it is determined that said second management information has been detected, the reproducing operation controlled based on said second management information, and when it is determined that said second management information is not detected, the reproducing operation is inhibited based on said first management information.

27. (Currently Amended) A recording and/or reproducing method for a recording medium, comprising the steps of:

reading out content data from the recording medium in which at least first management information and second management information whose remaining intensity is weaker than a remaining intensity of said first management information have been embedded and recorded in the content data, and discriminating whether said first management information has been detected;

discriminating whether said second management information has been detected; and

when it is determined that said second management information has been detected, controlling a recording and/or reproducing operation based on a managing condition shown by said second management information,

wherein said first management information remains during the recording and/or reproducing operation and said second management information is erased during the recording and/or reproducing operation;

the first management information being less likely than the second management information to be altered by processing of the content data~~each of the first management information and the second management information is operable to be selectively indicative of one of three or more states of usage rights.~~



28. (Previously Presented) The recording and/or reproducing method for a recording medium according to claim 27, wherein when it is determined that said second management information is not detected, the recording and/or reproducing operation controlled based on said first management information.

29. (Previously Presented) The recording and/or reproducing method for a recording medium according to claim 27, wherein when it is determined that said first management information is not detected, the recording and/or reproducing operation is controlled based on said second management information.

30. (Previously Presented) The recording and/or reproducing method for a recording medium according to claim 27, wherein when it is determined that neither said first nor second management information is detected, the recording and/or reproducing operation is controlled based on additional information added to the content data.

31. (Previously Presented) The recording and/or reproducing method for a recording medium according to claim 27, wherein a managing condition by said first management information is more severe than a managing condition by said second management information.

32. (Previously Presented) The recording and/or reproducing method for a recording medium according to claim 31, wherein

when each of said first and second management information is copy management information a managing condition showing that copying is impossible, and

when it is determined that said second management information has been detected, the recording operation is controlled based on said second management information, and when

it is determined that said second management information is not detected, the recording operation is inhibited based on said first management information.

33. (Previously Presented) The recording and/or reproducing method for a recording medium according to claim 32, wherein when said second management information indicates a managing condition which permits a copy of the content data read out from said recording medium, the recording operation regarding a copy of the content data is controlled based on said second management information, and said second management information which is added to said content data to be copied is rewritten to the managing condition showing that copying is impossible.

34. (Previously Presented) The recording and/or reproducing method for a recording medium according to claim 31, wherein

when each of said first and second management information is reproduction management information, the managing condition by first management information is a managing condition showing that reproduction is impossible, and

when it is determined that said second management information has been detected, the reproducing operation is controlled based on said second management information, and when it is determined that said second management information is not detected, the reproducing operation is inhibited based on said first management information.

35. (Currently Amended) A copy control method for content data, the method comprising the steps of:

discriminating whether second management information has been detected from the content data in which at least first management information and the second management information

whose remaining intensity weaker than a remaining intensity of said first management information have been embedded; and

when it is determined that said second management information has been detected, controlling a copying operation of the data of said contents based on a managing condition shown by said second management information,

wherein said first management information is copied during the copying operation and said second management information is not copied during the copying operation;

the first management information being less likely than the second management information to be altered by processing of the content data~~each of the first management information and the second management information is operable to be selectively indicative of one of three or more states of usage rights.~~

36. (Previously Presented) The copy control method for content data according to claim 35, wherein when it is determined that said second management information is not detected, the copying operation of the data of said contents is controlled based on said first management information.

37. (Previously Presented) The copy control method for content data according to claim 35, wherein a managing condition by said first management information is more severe than that by said second management information.

38. (Previously Presented) The copy control method for content data according to claim 35, wherein

when each of said first and second management information is copy management information, the managing condition by said first management information is a managing condition showing that copying is impossible, and

when it is determined that said second management information has been detected, the copying operation of the data

of said contents controlled based on said second management information, and when it is determined that said second management information is not detected, the copying operation of the content data is inhibited based on said first management information.

39. (Previously Presented) The copy control method for content data according to claim 38, wherein when second management information permits the copying of the content data the copying operation of the content data is permitted based on said second management information, and said second management information which is added to said content data which is copied is rewritten to a managing condition for inhibiting the copying of the content data.

40. (Currently Amended) A reproducing apparatus for reproducing a recording medium, comprising:

- a head for reading out content data from the recording medium which at least first management information and second management information whose remaining intensity is weaker than remaining intensity of said first management information have been embedded and recorded;

- a signal processing unit for performing a signal process to the content data read out from said recording medium by said head;

- a switching circuit unit to which an output signal from said signal processing unit is supplied;

- a detecting circuit for detecting said second management information from the content data read out from said recording medium by said head; and

- a discriminating circuit to which a detection result by said detecting circuit is supplied and which controls an on/off operation of said switching circuit unit based on a managing condition shown by said second management information

when the detection result showing that said second management information has been detected by said detecting circuit is supplied thereto

wherein said first management information remains even if the signal process is executed to the content data and said second management information is erased by executing the signal process to the content data;

the first management information being less likely than the second management information to be altered by processing of the content data~~each of the first management information and the second management information is operable to be selectively indicative of one of three or more states of usage rights.~~

41. (Previously Presented) The reproducing apparatus according to claim 40, wherein when it is determined that said second management information not detected, the on/off operation of said switching circuit unit is controlled based on said first management information.

42. (Previously Presented) The reproducing apparatus according to claim 40, further comprising a converting unit to which the output signal from said signal processing unit is supplied and which converts said supplied output signal into an analog signal, and wherein said switching circuit unit has a first switching circuit to which the output signal from said signal processing unit is supplied and a second switching circuit to which an output signal from said converting unit is supplied.

43. (Previously Presented) The reproducing apparatus according to claim 42, wherein when each of said first and second management information is copy management information, on/off operations of said first and second switching circuits are controlled based on a managing condition shown by said

second management information, and when said second management information cannot be detected, said first switching circuit is turned off based on said first management information.

44. (Previously Presented) The reproducing apparatus of the recording medium according to claim 42, wherein when each of said first and second management information is reproduction management information, on/off operations of said first and second switching circuits are controlled based on a managing condition shown by said second management information, and when said second management information cannot be detected, said second switching circuit is turned off based on said first management information.